

Lightweight Flexible Coupling Fig. 7000



The Fig. 7000 Lightweight Flexible Coupling is designed for applications where system flexibility is desired.

The Fig. 7000 Coupling is approximately 30% lighter in weight than the Fig. 7001 Coupling, and allows for working pressure ratings up to 600 psi (41.4 bar).

The Figure 7000 Lightweight Flexible Coupling is intended for use in several applications. See gasket Grade Index for gasket recommendations.

See technical data section for design factors.

For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions™ Sales Representative.

Material Specifications

Bolts

SAE J429, Grade 5, Zinc Electroplated
ISO 898-1, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Heavy Hex Nuts

ASTM A563, Grade A, Zinc Electroplated
ISO 898-2, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Hardware Kits

304 Stainless Steel (available in sizes up to ¾")

Kit includes:

- (2) Bolts per ASTM A193, Grade B8 and
- (2) Heavy Hex Nuts per ASTM A194, Grade 8.

EcoGuard® (available in sizes up to ¾")

Kit includes:

- Bolts per SAE J429, Grade 5, with EcoGuard corrosion-resistant zinc flake coating and
- (2) Heavy Hex Nuts per ASTM A563, Grade A, EcoGuard corrosion-resistant zinc flake coating.

Material Specifications (continued)

Stainless Steel Bolts & Nuts

304SS bolts and nuts are available as a standard option. (316SS are available for special order).

Housing

Ductile Iron conforming to ASTM A536, Grade 65-45-12

Coatings

- Rust inhibiting paint
- Color: Orange (standard)
- Hot Dipped Zinc Galvanized (optional)

Gasket Materials

Properties as designated in accordance with ASTM D2000

Grade "EP" EPDM (Green and Red color code)

-40°F to 250°F (Service Temperature Range)
(-40°C to 121°C)

Recommended for water service, diluted acids, alkalis solutions, oil-free air and many other chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS.

For hot water applications the use of Gruvlok Extreme Temperature lubricant is recommended. NSF-61 Certified for cold and hot water applications up through 12".

Grade "T" Nitrile (Orange color code)

20°F to 180°F (Service Temperature Range)
(-29°C to 82°C)

Recommended for petroleum applications. Air with oil vapors and vegetable and mineral oils.

NOT FOR USE IN HOT WATER OR HOT AIR

Grade "O" Fluoro-Elastomer (Blue color code)

Size Range: 1" - 8" (C style only)

-20°F to 300°F (Service Temperature Range)
(-29°C to 149°C)

Recommended for high temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated hydrocarbons and lubricants.

Grade "L" Silicone (Red color code)

Size Range: 1" - 8" (C style only)

-40°F to 350°F (Service Temperature Range)
(-40°C to 177°C)

Recommended for dry, hot air and some high temperature chemical services.

Gasket Type

Standard C Style (1" - 8")

Flush Gap (1" - 8")

Lubrication

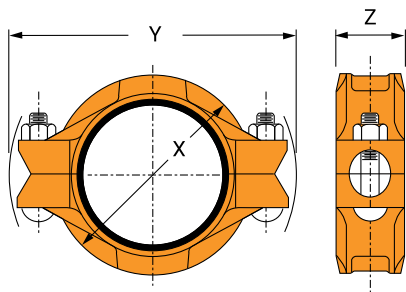
Standard Gruvlok

Gruvlok Xtreme (Do Not use with Grade "L")



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Lightweight Flexible Coupling Fig. 7000



Nominal Size	O.D.	Max. Working Pressure †	Max. End Load	Range of Pipe End Separation	Deflection from ζ		Coupling Dimensions			Coupling Bolts		Specified Torque §		Approx. Wt. Ea.
					Per Coupling	of Pipe	X	Y	Z	Qty.	Size	Min.	Max.	
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	Deg.(°)–Min (')	In./ft–mm/m	In./mm	In./mm	In./mm		In./mm	Ft.-Lbs/N-m	Ft.-Lbs/N-m	Lbs./kg
1 25	1.315 33.4	600 41.4	815 3.62	0-1/32 0-0.79	1° 22'	0.29 23.8	2 3/8 60	4 1/4 108	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	1.3 0.6
1 1/4 32	1.660 42.2	600 41.4	1,299 5.78	0-1/32 0-0.79	1° 5'	0.23 18.8	2 3/4 70	4 3/8 111	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	1.4 0.6
1 1/2 40	1.900 48.3	600 41.4	1,701 7.57	0-1/32 0-0.79	0° 57'	0.20 16.5	3 76	4 3/8 117	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	1.5 0.7
2 50	2.375 60.3	600 41.4	2,658 11.82	0-1/32 0-0.79	0° 45'	0.16 13.1	3 1/2 89	5 1/2 140	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	1.7 0.8
2 1/2 65	2.875 73.0	600 41.4	3,895 17.33	0-1/32 0-0.79	0° 37'	0.13 10.9	4 102	5 3/4 146	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	1.9 0.9
3 O.D. 76.1	2.996 76.1	600 41.4	4,230 18.82	0-1/32 0-0.79	0° 36'	0.13 10.4	4 102	6 1/8 156	1 3/4 44	2	3/8 x 2 1/4 M10 x 57	30 40	45 60	2.3 1.0
3 80	3.500 88.9	600 41.4	5,773 25.68	0-1/32 0-0.79	0° 31'	0.11 8.9	4 3/8 117	6 3/4 171	1 3/4 44	2	1/2 x 2 3/4 M12 x 70	80 110	100 150	2.9 1.3
3 1/2 90	4.000 101.6	600 41.4	7,540 33.54	0-1/32 0-0.79	0° 27'	0.09 7.8	5 1/8 130	7 3/8 194	1 3/4 44	2	1/2 x 3 M12 x 76	80 110	100 150	3.1 1.4
4 1/4 O.D. 108.0	4.250 108.0	600 41.4	7,540 33.54	0-1/32 0-2.38	1° 16'	0.26 22.0	5 1/2 140	7 3/4 197	2 51	2	1/2 x 3 M12 x 76	80 110	100 150	4.0 1.8
4 100	4.500 114.3	600 41.4	9,543 42.45	0-1/32 0-2.38	1° 12'	0.25 20.8	5 3/8 149	8 1/8 206	2 51	2	1/2 x 3 M12 x 76	80 110	100 150	4.6 2.1
5 1/4 O.D. 133.0	5.236 133.0	500 34.5	10,766 47.89	0-1/32 0-2.38	1° 2'	0.21 17.9	6 1/2 165	9 1/8 232	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	5.7 2.6
5 1/2 O.D. 139.7	5.500 139.7	500 34.5	11,879 52.84	0-1/32 0-2.38	0° 59'	0.20 17.0	6 3/4 171	9 3/8 238	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	6.0 2.7
5 125	5.563 141.3	500 34.5	12,153 54.06	0-1/32 0-2.38	0° 58'	0.20 16.8	7 178	9 3/8 244	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	6.1 2.8
6 1/4 O.D. 159.0	6.259 159.0	500 34.5	15,384 68.43	0-1/32 0-2.38	0° 51'	0.18 14.9	7 1/2 191	10 3/8 264	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	6.7 3.0
6 1/2 O.D. 165.1	6.500 165.1	500 34.5	16,592 73.80	0-1/32 0-2.38	0° 50'	0.17 13.1	7 3/4 197	10 3/4 273	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	7.0 3.2
6 150	6.625 168.3	500 34.5	17,236 76.67	0-1/32 0-2.38	0° 49'	0.17 14.1	8 203	11 279	2 51	2	5/8 x 3 1/2 M16 x 85	100 135	130 175	8.1 3.7
8 200	8.625 219.1	500 34.5	29,213 129.95	0-1/32 0-2.38	0° 37'	0.13 10.9	10 1/2 264	12 3/8 337	2 1/2 60	2	3/4 x 4 1/2 M20 x 110	130 175	180 245	14.2 6.4

Notes:
 Range of Pipe End Separation and Angular Deflection values are for roll grooved pipe and may be doubled for cut groove pipe. See the Technical Data Section of the Gruvlok Catalog.
 For Misalignment, Deflection and Curve Layout Calculations, refer to the Technical Data Section of the Gruvlok Catalog.
 † Maximum Working Pressure Rating is for schedule 40 steel pipe. For light wall, stainless steel, aluminum and ISO pipe pressure ratings, please refer to the technical data section.
 For additional details see “Coupling Data Chart Notes” in the Introduction Section of the Gruvlok Catalog.
 § – For additional Bolt Torque information, see the Technical Data Section of the Gruvlok Catalog.
 See Installation & Assembly directions on next page.
 Not for use in copper systems.



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Fig. 7000 Lightweight Flexible Coupling

1 Check & Lubricate Gasket

Check gasket to be sure it is compatible for the intended service. Apply a thin coating of Gruvlok lubricant to the exterior surface and sealing lips of the gasket. Be careful that foreign particles do not adhere to lubricated surfaces.

2 Gasket Installation

Slip the gasket over the pipe end, making sure the gasket lip does not overhang the pipe end.

3 Alignment

After aligning the two pipe ends together, pull the gasket into position, centering it between the grooves on each pipe. Gasket should not extend into the groove on either pipe.

4 Housings

With one nut unthreaded to the end of the bolt, unthread the other nut completely and swing the coupling housing halves over the gasket, making sure the housing keys engage the grooves. Insert the bolt and turn the nuts finger tight.

5 Tighten Nuts

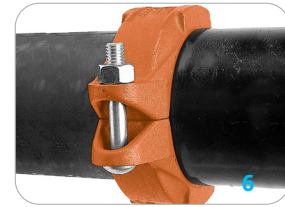
Tighten the nuts alternately and equally to the specified bolt torque. The housing bolt pads must make metal-to-metal contact.

Caution: Uneven tightening may cause the gasket to pinch.



6 Assembly is Complete

Visually inspect the pipe joint to assure the coupling keys are fully engaged in the pipe grooves and the bolt pads are in firm even metal-to-metal contact on both sides of the coupling.



Caution: Proper torquing of coupling bolts is required to obtain specified performance. Over torquing the bolts may result in damage to the bolt and/or casting which could result in pipe joint separation. Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.



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